

The effect of positive childhood experiences in college students

P.Mortier¹, K.Demyttenaere¹, R.Bruffaerts¹

¹ KULeuven, Leuven, Belgium

Background

A positive association between adverse childhood experiences and suicidality is well documented in community samples worldwide¹. Studies in college students are scarce and investigate a limited range of adverse experiences^{2,3,4,5}. Furthermore, little is known about the effect of positive childhood experiences on the association between childhood adversity and suicidality.

Objectives

- to measure the prevalence of adverse childhood experiences (< age 17) in Belgian college students
- to investigate the association between adverse childhood experiences and suicidality
- to investigate the effect of positive childhood experiences on the association between adverse childhood experiences and suicidality

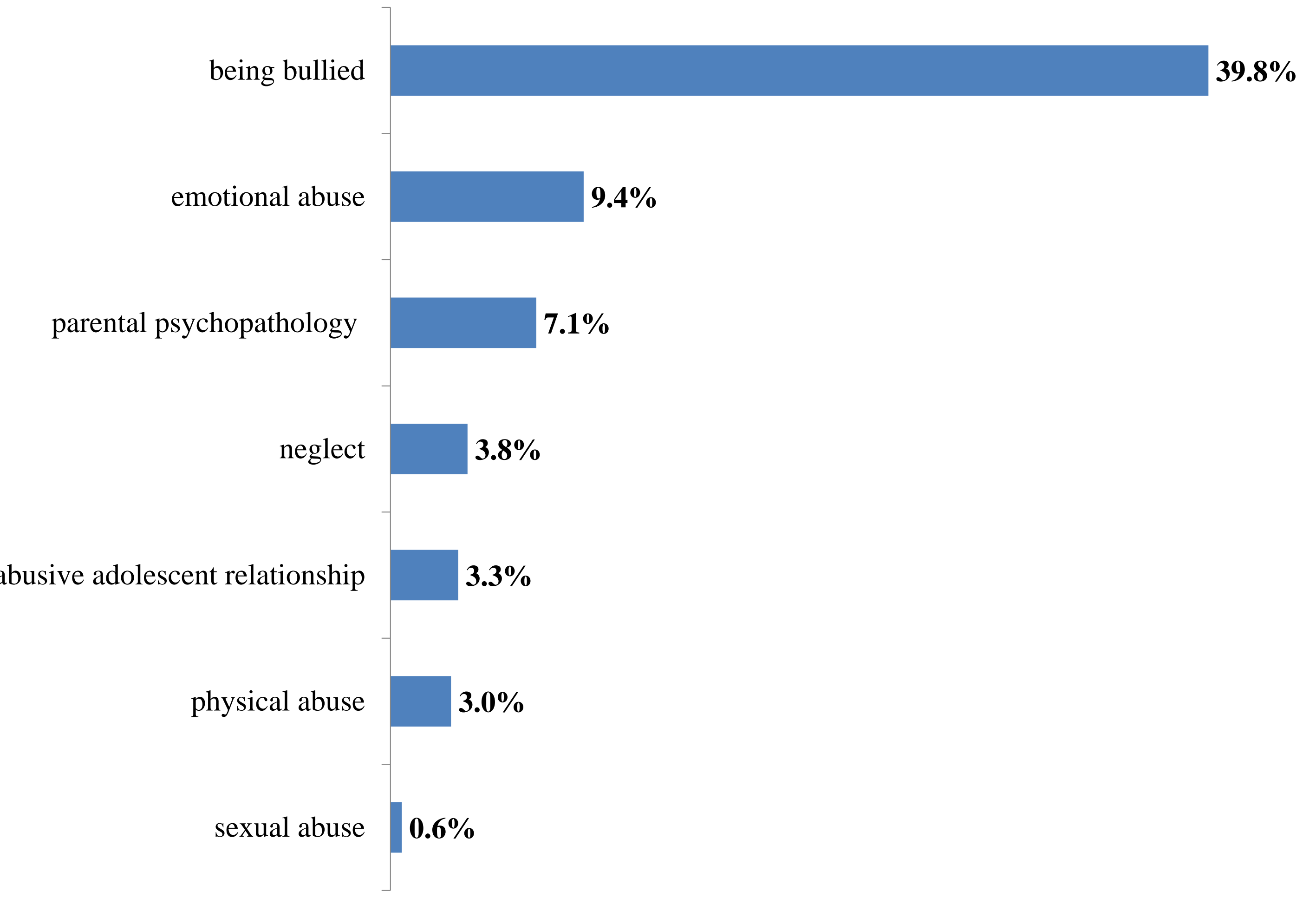
Methods

- electronic survey of a random sample of 2,364 Belgian KULeuven freshmen (response rate 66.8%; mean age 19.1; 58.2% women)
- 33 childhood experiences (< age 17) were measured using 5-point Likert-type items adapted from validated measures (e.g. Adverse Childhood Experience Scale⁶; Childhood Trauma Questionnaire⁷); principal component analysis (varimax rotation) identified 7 adverse and 3 protective factors (cumulative eigenvalues 59.5%)
- multivariate logistic regression analyses with lifetime suicidality (i.e. suicidal ideation, plans, or attempts) as the dependent variable and gender, age, parental financial situation, lifetime mental disorders, adverse and protective childhood factors, and number of adverse childhood experiences as independent variables

Results

- the prevalence estimate of lifetime suicidality was 11.9%
- as can be seen in Figure 1, the most frequent adverse childhood experiences were being bullied, emotional abuse by a family member and parental psychopathology (median percentage 39.8%, 9.4% and 7.1%, respectively).

Figure 1. Frequencies (median item percentages) of adverse childhood experiences.



The association between adverse childhood experiences and suicidality (adjusted for sociodemographic variables, mental disorders, and number of adverse experiences) remained significant for emotional abuse by a family member (aOR 1.58), having been bullied (aOR 2.41), and having been in an abusive adolescent romantic relationship (aOR 2.73). Table 1 shows the reduction in odds ratios for each of these three significant findings after additional adjustment for separate positive childhood experiences. It was found that:

- compared with positive peer or school experiences, positive family experiences were more protective against suicidality when experiencing emotional abuse by a family member (21% vs. 4% reduction in odds)
- compared with positive family experiences, positive peer or school experiences were more protective when being bullied (14-15%, respectively, vs. no reduction in odds)
- compared to positive peer experiences, positive school experiences and positive family experiences were more protective when being in an abusive adolescent romantic relationship (18-23%, respectively, vs. no reduction in odds)

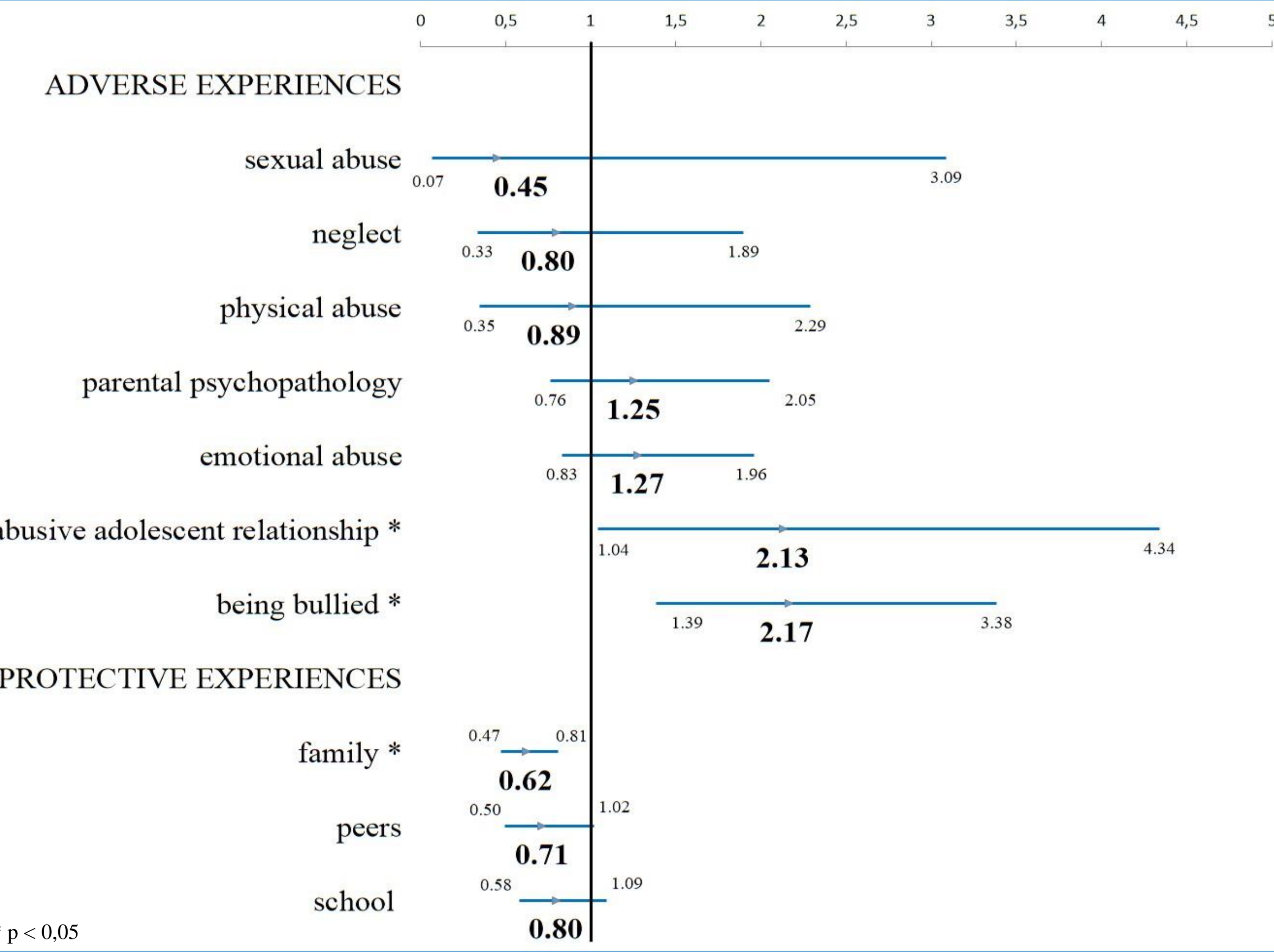
Reduction in odds ratios did not reach statistical significance. However, similar odds ratio reductions were found across different series of logistic regression analyses.

In a full logistic regression model (adjusted for sociodemographics, lifetime mental disorders, and number of adversities; $\chi^2=259.47$; $df=20$; $p<0.0001$; $R^2=23.5\%$), having been bullied (aOR 2.17), an abusive adolescent romantic relationship (aOR 2.13), and positive family experiences (aOR 0.62) remained associated with suicidality (Figure 2).

Table 1. Reduction in odds ratio (percentage) between childhood adverse experiences (rows) and lifetime suicidality when adjusting for childhood protective factors (columns).

	family	peers	school
emotional abuse	-21%	-4%	-4%
being bullied	3%	-14%	-15%
abusive adolescent relationship	-23%	5%	-18%

Figure 2. Association between childhood experiences and lifetime suicidality (odds ratios) adjusted for age, gender, parental financial situation, lifetime mental disorders and number of adverse childhood experiences.



Conclusions

Among a wide range of adverse childhood experiences, a history of bullying victimization was most frequent among college students (40%) and remained most strongly associated with lifetime suicidality (aOR 2.2), even after adjustment for multiple covariates. We found that the environment (e.g. family or school) in which childhood adverse events are experienced (e.g. emotional abuse or bullying, respectively) may protect against suicidality by providing counteracting positive experiences. This has implications in the treatment and prevention of childhood suicidality, e.g. when determining the risk/benefit ratio of removing children from adverse environments.

References

- Bruffaerts et al. (2010). British Journal of Psychiatry.
- You et al. (2014). PLoS One.
- Singh et al. (2012). Asian Journal of Psychiatry.
- Whitlock et al. (2007). Archives of Pediatrics & Adolescent Medicine.
- Wilcox et al. (2010). Journal of Affective Disorders.
- Felitti et al. (1998). American journal of preventive medicine.
- Bernstein et al. (1997). Journal of the American Academy of Child and Adolescent Psychiatry.

Funding

This research was supported by the FWO Flanders (11N0514N).